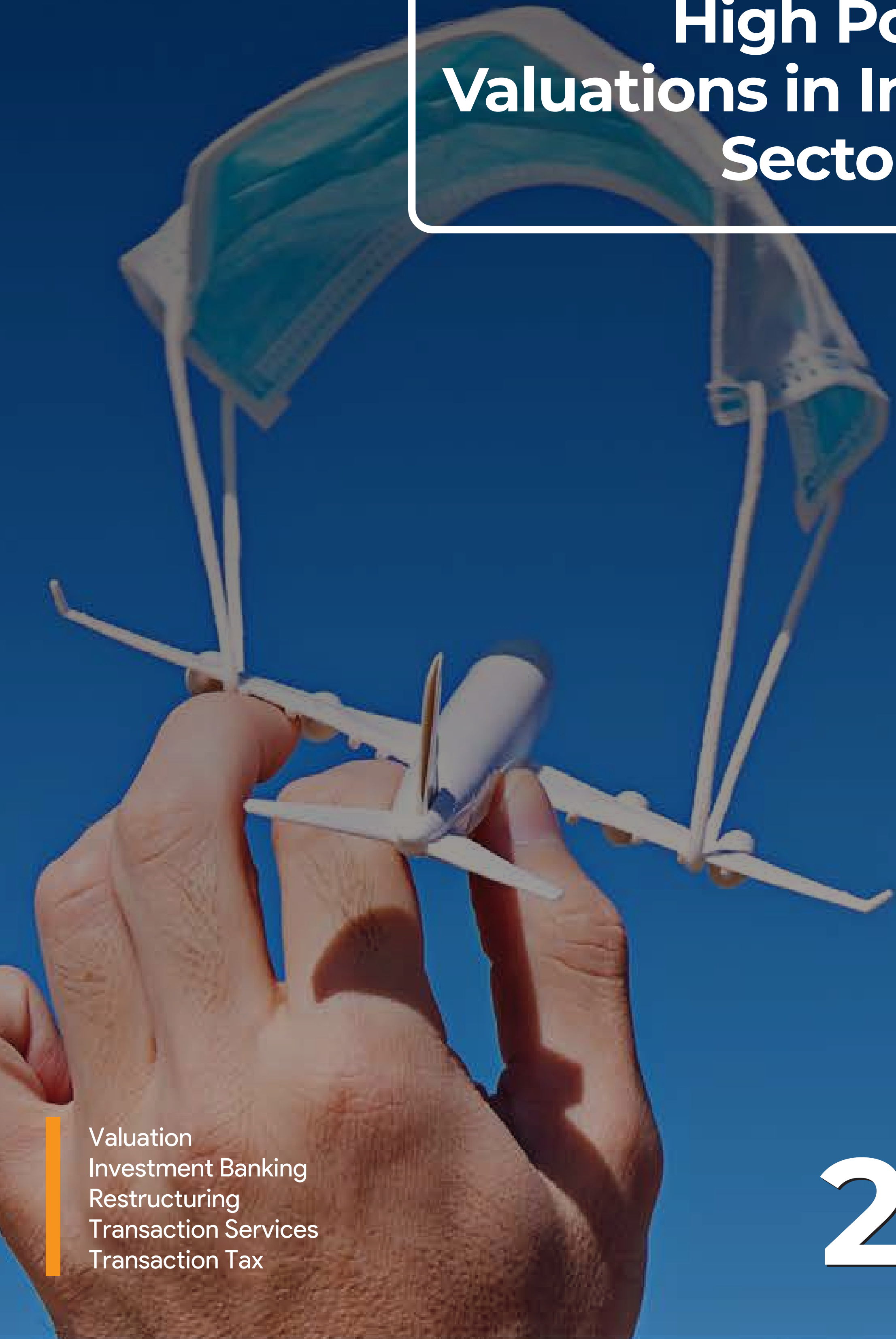
CELEBRATING 50TH YEAR OF LEADERSHIP 1971-2021

RBSA Advisors

High Expectations !! High Potential !! Valuations in Insurance Sector in India



Valuation
Investment Banking
Restructuring
Transaction Services
Transaction Tax

June 2020

Content

1 Background

> *"You don't need to pray to God anymore when there are storms in the sky, but you do have to be insured."*
>
> *- Bertolt Brecht*

> *"Life is 10% what happens to you and 90% how you react to it"*
>
> *- Charles R. Swindoll*

The Indian insurance industry has witnessed significant growth in the past few years with the introduction of a wide range of insurance products and services. The industry consists of both life and non-life insurance companies. Out of the 57 insurance companies operating in India, 24 are in the life insurance business, and balance companies operate in the non-life insurance segment. The Indian Insurance Sector is basically divided into two categories - Life Insurance and Non-life Insurance. The Non-life Insurance sector is also termed as General Insurance. Both the Life Insurance and the Non-life Insurance is governed by the IRDAI (Insurance Regulatory and Development Authority of India).

A Life insurance is a contract between an individual ("Policy holder") and an insurance company ("Insurer"), in which the Insurer provides financial security in return for premium payment(s). In case of the Policy holder's death or on maturity, the Insurer pays a specified amount, as per the terms of the contract, to the Policy holder or their family, either on a lumpsum basis or for a specified period.

General insurance is a contract of indemnity covering non-life assets - such as home, motor vehicle, health, travel, fire, thefts, accidents and man-made disasters. General insurance is an annual contract with a lumpsum premium.

2

Evolution of Insurance Industry

The insurance industry in India has witnessed different eras and is more than 150 years old. From the days when there were several private companies, to nationalization, and to privatization, the industry has come a full circle.

All life Insurance companies were nationalized to form the Life insurance Corporation of India ("LIC") (in 1956), when the Parliament of India passed the Life Insurance of India Act. The LIC absorbed 154 Indian and 16 non-Indian insurers and 75 provident societies. It had a monopoly until the late 1990s, when the insurance industry was reopened to the private sector. The non-life insurance business was nationalized to form General Insurance Corporation of India ("GIC") in 1972. GIC was formed for the purpose of superintending, controlling and carrying on the business of general insurance.

On April 19, 2000, the Insurance Regulatory and Development Authority Act, 1999 (IRDAA) came into force. IRDAA also introduced amendment to The General Insurance Business (Nationalisation) Act, 1972 ("GIBNA") and the Insurance Act, 1938 which removed the exclusive privilege of GIC and its subsidiaries carrying on general insurance in India. In November 2000, GIC was renotified as the Indian Reinsurer and through administrative instruction, its supervisory role over the four subsidiaries was ended.

The Insurance Laws (Amendment) Act 2015 introduced much-awaited reforms, including, increasing the foreign investment cap in the insurance sector to 49 percent, permitting overseas reinsurers to open branch offices to carry out reinsurance business in India.

Insurance Regulatory and Development Authority of India ("IRDAI") is the statutory body set up for protecting the interests of the policyholders and regulating, promoting, and ensuring orderly growth of the insurance industry in India. IRDAI is an autonomous, statutory agency tasked with regulating and promoting the insurance and re-insurance industries in India. The key objective of IRDAI includes promotion of competition to improve customer satisfaction through increased consumer choice and lower premiums, while ensuring the financial security of the insurance market. IRDAI over the years has de-tariffed most of the segment except for Motor TP.

The total size of the Indian general insurance industry was INR 1.7 trillion in FY19. Over the last 10 years the industry has grown at a CAGR of ~18.0%., while the total size of life insurance industry (total premium income) which was INR 1.09 trillion in FY10 has growth to INR 2.59 trillion FY20 depicting growth at a CAGR of ~9.0%.

2

Evolution of Insurance Industry

The evolution of the tariff regime for key product segments is set out below:

	1994	2005	2007
Tariffed	• Marine Hull • Fire • Engineering • Motor Own Damage • Motor Third Party	• Fire • Engineering • Motor Own Damage • Motor Third Party	• Motor Third Party
Tariffed	• Aviation • Liability • Health & Personal accident • Marine Cargo	• Aviation • Liability • Health & Personal accident • Marine Cargo • Marine Hull	• Aviation • Liability • Health & Personal accident • Marine Cargo • Marine Hull • Fire • Engineering • Motor Own Damage

Of late, private insurers are gaining market share in non-life segment against PSU insurers, who have been consistently losing market share (despite lowering prices), however the intensity of market share loss has further increased in last 2-3 years as PSUs lack adequate capital to write incremental business. Private insurers have gained ~ 1,000 bps market share over last 10 years, by improving underwriting quality. Though the government is talking about a merger and capital infusion in the 3 bleeding PSU insurers, its unlikely that they would have any sizeable improvement in their market share

A **tariff regime** is one where the premium rates, policy terms and deductibles are controlled and to be applied uniformly by all the underwriters / insurers.

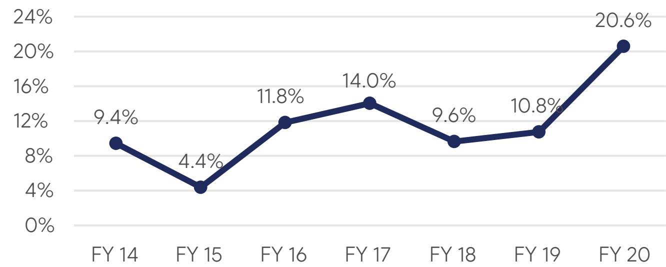
De-tariffication was a paradigm shift in insurance business. It basically removes the general (non-life) insurance product pricing mechanism from the purview of controlled prices administered by Tariff Advisory Committee both for Public & Private Insurers.
All insurers are free to decide the premium rates based on their in-house guidelines of pricing.

3

Growth of Insurance Sector

- Presently, the insurance industry of India consists of several insurance companies of which 24 are in life insurance business. Among the life insurers, LIC is the sole public sector company.
- In FY20, premium from new life insurance business increased ~20.6% year-on-year to ~INR 2.59 trillion (~US$ 34.4 billion).
- India's favorable demographic dividend, with 65% of the population below the age of 35, is a strong driver of growth for the coming years. Life insurance industry in the country is expected to grow by ~ 12-15% annually for the next three to five years. With ~68.7% new business market share in FY20, LIC, the only public sector life insurer in the country, continues to be the market leader.

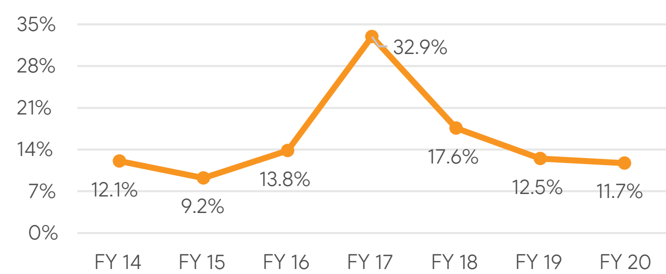
Nominal Growth Rate in Life Insurance premium collected



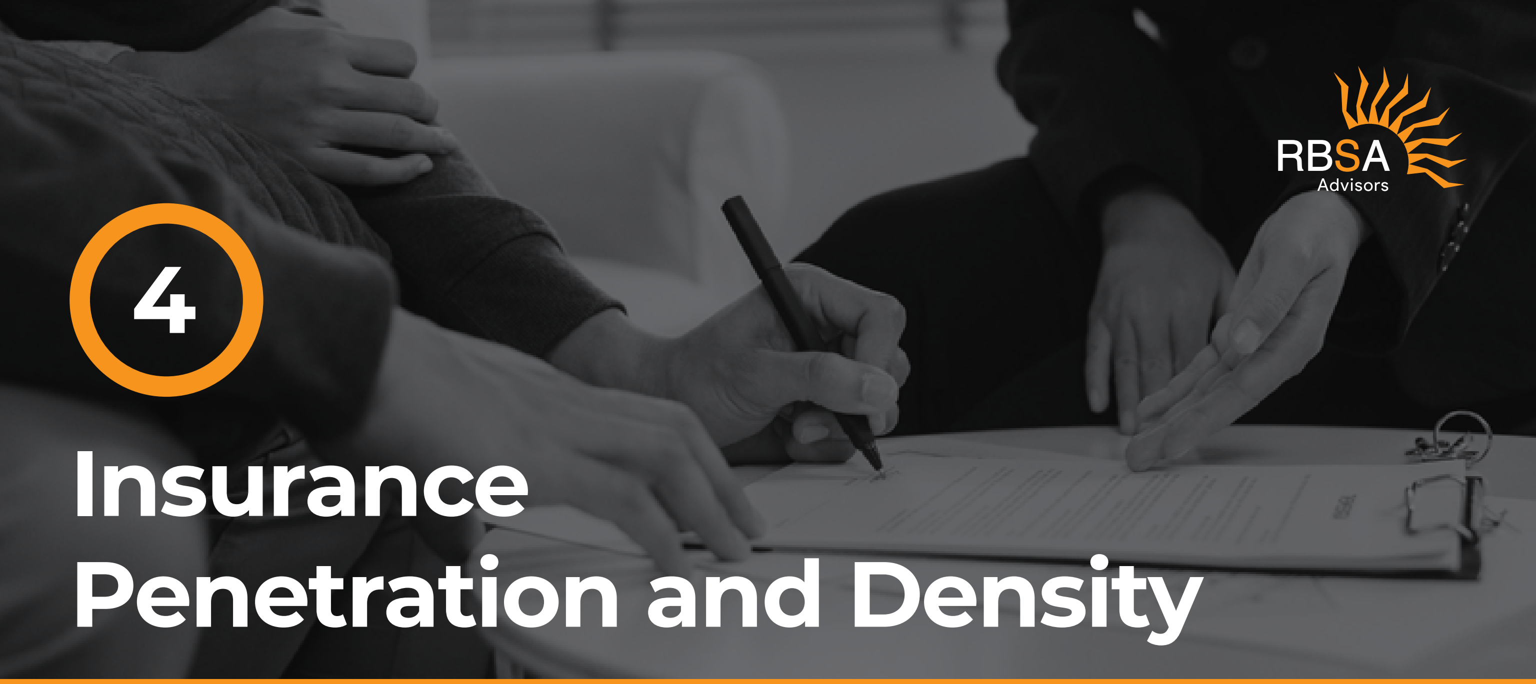
(Source: Handbook on Indian Insurance Statistics 2018-2019)

- There are 30+ General Insurance Companies as of FY 2020 (including reinsurers). The Non-life insurers have maintained a steady growth despite many industry and business risks faced by them during the last decade.
- The Government has taken many pro-industry initiatives. Schemes like "Pradhan Mantri Fasal Bima Yojana" (PMFBY) and The National Health Protection Scheme, launched under "Ayushman Bharat" have greatly helped in bringing the previously untouched population under the ambit of insurance and has also increased awareness in the country.
- In FY20 the Gross direct premiums of non-life insurers in India reached ~INR 1.9 trillion increasing by ~11.7% on a year-on-year.

Nominal Growth Rate in General Insurance Gross Premium



(Source: GIC Yearbook 2018-2019)

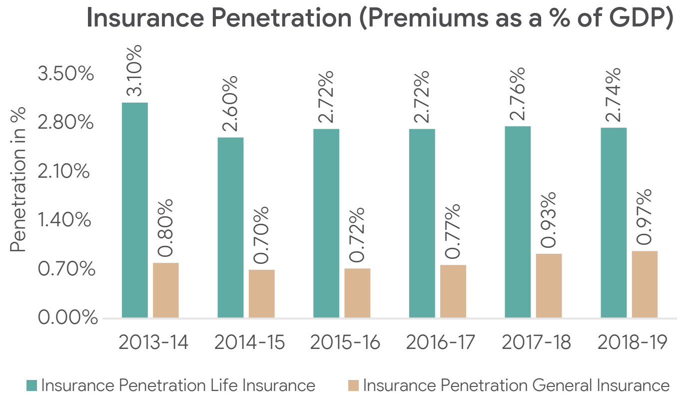


Insurance Penetration and Density

Insurance Penetration

- Penetration rate indicates the level of development of insurance sector in a country.
- Penetration rate is measured as the ratio of premium underwritten in a particular year to the Gross Domestic Product. Insurance Penetration depicts the level of insurance penetration in terms of Gross Domestic Product.
- The industry has increased its penetration figures, growing from 3.69% in FY 17-18 to 3.71% in FY 18-19.
- India is ranked 43rd in the world in terms of penetration

(Source: Swiss Re sigma no 3/2019)

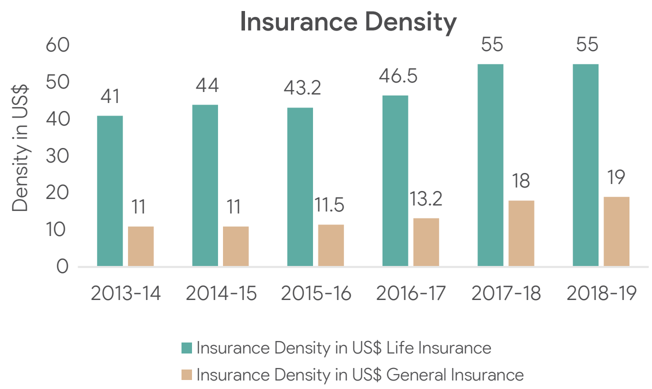


(Source : Handbook on Indian Insurance Statistics 2018-2019)

Insurance Density (Gross Direct Premium/Population)

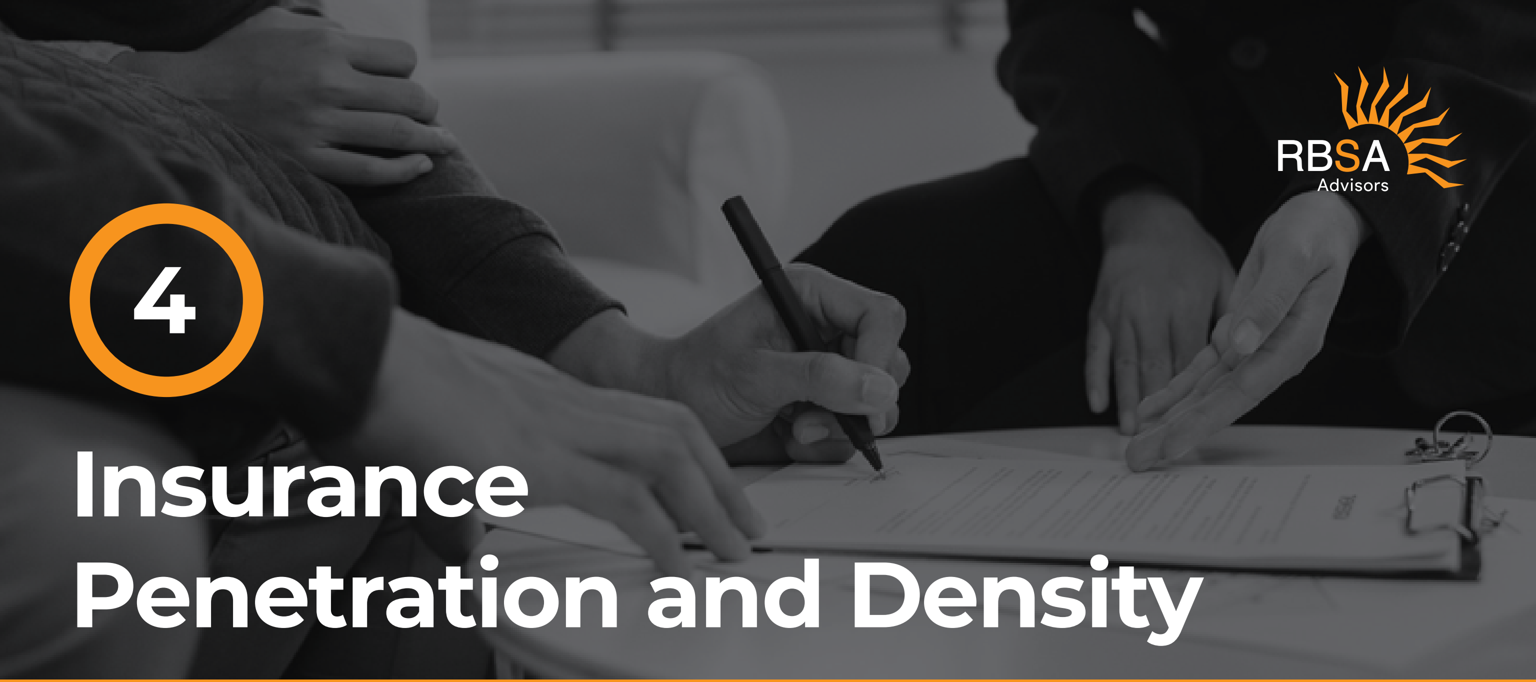
- The industry has also increased its density figures, growing from USD 73 in FY 17-18 to USD 74 in FY 18-19.
- Insurance density is defined as the ratio of premium underwritten in a year to the total population (measured in US$ for convenience of international comparison)
- Thus, Insurance Density indicates the extent to which insurance has reached the population of a country, which in turn exhibits the overall development of insurance sector.
- India is ranked 74th in the world in terms of density

(Source: Swiss Re sigma no 3/2019)



(Source : Handbook on Indian Insurance Statistics 2018-2019)

The lower levels of insurance penetration and density in India present an opportunity of growth for the insurance industry.



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Insurance Penetration and Density

Insurance penetration in India is low, particularly for general insurance, which includes motor, health, property and liability covers. Per IMF report of 2018, an Indian buys about INR 750 of general insurance per person per year compared to over INR 6,500 in Russia, China or Brazil. In terms of GDP, India's premium are around 30% of the world's average premium. A well-developed general insurance industry mitigates the risk of ill-health, accidents, catastrophes and litigation.

The following are some of the reasons for low insurance penetration,

- People buy less general insurance because they don't know where to buy from, products are not adequately tailored to their needs, and regulation does not require them to buy the insurance covers compulsorily.
- Distribution outside large cities is poor.
- Under Penetration of motor, health and property - Less than 30% of two wheelers in India are insured after one year of purchase. For passenger vehicles this number is estimated at < 70%.
- Out-patient medical expenses, which is a major expenditure, are not covered under health insurance.
- Dental treatments are uninsured and kept outside of Mediclaim cover.
- In the case of property (fire) under penetration is high as a lot of buildings in India are not insured.
- Also, the decision of buying insurance on buyers. This is democratic but not always good. Most people are not able to assess the impact of a catastrophe—something that causes huge damage, when it strikes.

5

India’s share in Global Insurance Market

India’s share in global insurance market was 1.92% during 2018.

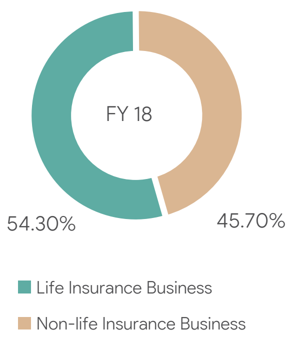
Life:

- India’s share in global life insurance market was 2.61% during 2018.
- During 2018, the life insurance premium in India increased by 7.7% (inflation adjusted) while global life insurance premium increased by 0.2% (inflation adjusted).

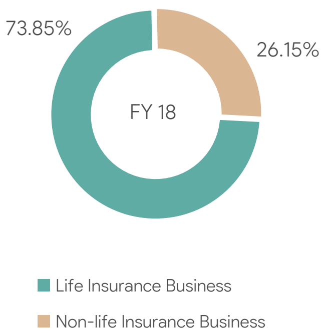
Non-Life:

- India’s share in global non-life insurance market was at 1.1% during 2018.
- The Indian non-life insurance sector witnessed a growth of 14% (inflation adjusted) during 2018. During the same period, the growth in global non-life premium was 3% (inflation adjusted).
- India ranked 10^{th} and 15^{th} in global life insurance and global non-life industry respectively

Global



India



Particulars	India’s Rank #	India’s share	India’s Growth FY18*	Global Growth FY18*
Life	10th	2.61%	7.70%	0.20%
Non-life	15th	1.10%	14.0%	3.00%
Combined		1.92%	9.30%	1.50%

 # Rank in terms of total premium
** Real premium growth rate*
(Source: IRDAI : http://www.policyholder.gov.in/Indian_Insurance_Market.aspx)

6

Types of Life Insurance Contracts

Term Policy

- Provides Life cover only
- No savings or profit component
- Premiums are low and affordable compared to other life policies

Endowment policy

- It differs in one aspect - Maturity benefit.
- Unlike term policy, it pays sum assured in case eventuality (death) as well as survival.

Unit Linked Insurance Plans

- ULIP are variant of the traditional endowment plan.
- It pays sum assured (or the value of investment portfolio if it is higher) on death/ maturity.
- ULIPs invest in stock markets they are well- suited for individuals with appetite for risk.

Whole Life Policy

- A whole life insurance plan covers a policyholder over his life.
- validity of the policy is not defined so the individual enjoys the life cover throughout his life.

Endowment policy

- It's a variant of the endowment plan
- It gives periodic payments over the policy term, and a portion of sum assured is paid out at regular interval.
  If policyholder survives the term, he gets the balance sum assured.

- Riders are extra benefits which can be attached with the main policy and provide for added protection against specific risks at nominal costs. Common riders in the industry include critical illness benefit rider, waiver of premium rider, accident & disability benefit rider, etc
- A participating policy ("Par") enables a policy holder to share the profits of the insurance company. These profits are shared in the form of bonuses or dividends. It is also known as a with-profit policy. In non-participating ("Non-Par") policies the profits are not shared, and no dividends are paid to the policyholders.

6

Types of General Insurance contracts

Motor Insurance

- It covers not only the losses on account of damage of vehicle but also damages & losses to third party, in case of an eventuality.
- It is now mandatory to have a motor insurance.

Health Insurance

- This insurance essentially covers the medical expenses incurred during hospitalisation

Marine Insurance

- It covers the losses or damages caused to ships, terminals and any transport or cargo by which goods are transferred, acquired, or held between different points of origin & destination.

Crop Insurance

- It mitigates the loss of crop due to natural disaster as well as the loss of revenue due to decline in prices of the agriculture commodity

Personal Accident Insurance

- It is an annual policy that provides compensation in event of injury, disability or death, solely by violent, accidental, external and visible event.

Liability Insurance

- It covers civil liabilities to third parties, arising from bodily injury, property damage, or their wrongs due to the action or inaction of the insured.
- It doesn't cover criminal liabilities.

Renters Insurance

- It covers all your belongings, any damages to the owner's property, injury of guests at your home and even increased living expenses.

Property Insurance

- Property insurance provides protection against most risks to property, such as fire, theft and some weather damage
- This includes specialized forms of insurance such as fire insurance, flood insurance, earthquake insurance, home insurance, or boiler insurance.

Aviation Insurance

- The insurance provides coverage for hull losses as well as liability for passenger injuries, environmental and third-party damage caused by aircraft accidents.

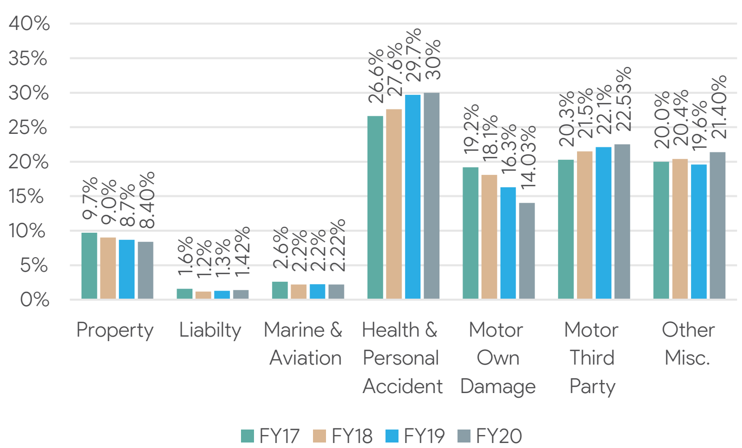
Other Miscellaneous Insurance

- Workmen Compensation Insurance
- Wedding Insurance
- Product Liability Insurance
- Annuity Insurance
- Credit Insurance
- Pet Insurance
- Child Insurance etc.

Break up of General Insurance business

- GDPI (in and outside India) written by non-life Insurance Industry increased from ~INR 1.7 trillion in 2018-19 to ~INR 1.9 trillion in 2019-20.
- Personal lines of business namely Motor and Health & Personal Accident insurance constituted almost two-thirds of the Non-Life Insurance premium.
- Crop insurance as an emerging segment comprises majority premium in Other Misc.

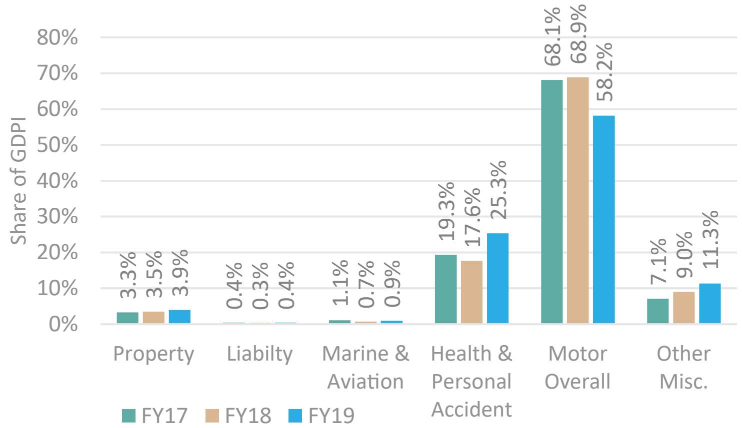
Segment-wise share of GDPI



(Source :GIC Yearbook 2018-2019 and GIC segment-wise report March 20)
FY20 figures are provisional and unaudited figures

- The number of policies issued increased from 176.2 million in 2017-18 to 190.5 million in 2018-19.
- Proportion of number of policies issued in Overall Motor has decreased from 68.9% in 2017-18 to 58.2% in 2018-19 and Other Miscellaneous classes has increased from 9% in 2017-18 to 11.3% in 2018-19.

Segment-wise Policies Issued



(Source :GIC Yearbook 2018-2019) - FY20 data Not available

8 Reinsurance

A reinsurer is a company that provides financial protection to insurance companies. Reinsurers handle risks that are too large for insurance companies to handle on their own and make it possible for insurers to obtain more business than they would otherwise be able to. Reinsurers also make it possible for primary insurers to keep less capital on hand needed to cover potential losses

Features of Reinsurance Industry:

- The reinsurance industry is similar to the general insurance line of business as accounting and nature of business are similar.
- Reinsurance is a more B2B line of business vs. direct insurance which is a more B2C business. The primary insurers enter reinsurance contracts with reinsurers to limit their risk exposures, free up capital, reduce specific risk exposure such as CAT risk or nuclear risk.
- Key considerations for primary insurers to deal with reinsurers include amongst others, pricing and credit rating. Credit ratings become even more important for any long-term reinsurance arrangements, more so in the case of life.
- In 2018, the global Reinsurance market size was 254.90 Billion US$ and it is expected to reach 318.90 Billion US$ by the end of 2025, with a CAGR of 3.3% during 2019-2025

		Reinsurance Premium written	
Sr. No.	**Company**	**Life & Non Life - Gross**	**Gross Non Life Premium**
1	Swiss Re	36,406	20,864
2	Munich Reinsurance Co.	35,814	23,395
3	Hannover Rueck S. E.	21,952	13,709
4	SCOR S.E.	17,466	7,069
5	Berkshire Hathaway	15,376	9,930
6	Lloyd's	14,064	14,064
7	China Reinsurance (Group Corp.)	11,564	3,942
8	Reinsurance Group of America Inc.	11,341	N.A.
9	Great West Lifeco	7,737	N.A.
10	Korean Reinsurance Company	6,803	5,972
	N.A. - Not Available (Source: Best's Reviews – Top 50 world's largest Re-insurer groups.)		

Type of reinsurance contracts

Broadly there are two type of reinsurance contracts namely 1) Treaty and 2) Facultative

Under treaty reinsurance, the cedent seeks reinsurance for certain type of insurance or class of risks insured under a direct contract of insurance or specific risks within a certain period.

Facultative reinsurance constitutes a separately negotiated contract of reinsurance in respect of each original contract of insurance. This permits the reinsurer to decide in each case whether to underwrite each risk and to more accurately price the reinsurance to reflect the risks.

9 Accounting - Life Insurance

Accounting of Life insurance companies is relatively complex, given that there are two income statements (Policyholders' account and Shareholders' account).

The financial statements of a life insurance company consist of:

- **Revenue Account - Policyholders' account (Technical account)**
  The income of Technical account generally consists of premium after adjusting reinsurance ceded and reinsurance accepted and income from investments. The expenses that form part of insurance companies are commission expenses, operating expenses, benefits paid, interim / terminal bonus paid and change in valuation of liability against life policies in force. The transfer of funds from Shareholders' fund to Policyholders' account is shown separately in the Revenue account.

  As per the IRDA regulations, Policyholders Funds are expected to maintain adequate level of solvency separately for each type of policy for declaration of bonuses to Participating fund and Pension fund.

- **Profit and Loss account - Shareholders' account (Non-technical account)**
  This account represents all income and expenses relating to Shareholders' account (those not relating to insurance business). The income comprises mainly of investment or other income earned from Shareholders' fund and expenses like depreciation on assets, investment expenses, directors' fees etc., transfer of funds to Policyholders' fund and preliminary expenses written off. The balance in this account is transferred to Balance Sheet.

- **Balance Sheet**
  The items in the balance sheet of a life insurance company include, other than the normal items -

  1. Shareholders' Fund
  2. Policyholders' Fund
  3. Investments related to Policyholders' fund, Shareholders' fund and assets held to cover linked liabilities.

  Shareholders' Fund includes share capital, reserves and surplus and fair value change account.

  Policyholders' Fund consists of policy liabilities, fair value change relating to policy fund investments, insurance reserves, provision for linked liabilities, funds for future appropriations, surplus allocated to shareholders etc.

  The balance in the Funds for future appropriations represents funds, the allocation of which, either to participating policyholders or to shareholders has not been determined at the balance sheet date. Transfers to and from the fund reflect the excess or deficiency of income over expenses and appropriations in each accounting period arising in the Company's policyholder fund.

- **Receipts and Payments account -** Cash flow statement

- The **segmental and reconciliation reports** relating to the funds (Revenue accounts and Balance Sheet)

9 Accounting - General Insurance

The financial statements of a General insurance company consist of:

- **Revenue Account (Policy holder's account)**
  The revenue account contains income and expenses relating to policyholders, and the surplus or deficit generated in this account is appropriated to the profit and loss account
  The revenue account generally consists of premium after adjusting reinsurance ceded and reinsurance accepted, income from investments and Other Income. The expenses that form part of the revenue account include claims incurred, commission expenses and operating expenses related to insurance business. The transfer of funds to Shareholders' account is shown separately in the Revenue account. An insurer prepares Revenue Accounts separately for fire, marine, and miscellaneous insurance business.

- **Profit and Loss account (Shareholders account)**
  The profit and loss account contains the income and expenses pertaining to shareholders
  The income comprises of operating profit/loss from fire, marine and miscellaneous insurance, investment or other income earned from investments and expenses like depreciation on assets, investment expenses, directors' fees etc. The balance in this account is transferred to Balance Sheet.

- **Statement of Assets and Labilities (Balance Sheet)**
  The items in the balance sheet of a insurance company include, other than the normal items –

  1. Fair Value change account in Shareholders' and Policyholders' Fund
  2. Investments related to Policyholders' fund, Shareholders' fund and assets held to cover linked liabilities.

- **Receipts and Payments account -** Cash flow statement

- The **segmental and reconciliation reports** relating to the funds (Revenue accounts and Balance Sheet)

10 Approach to Valuation

Insurance provides economic protection from identified risks occurring or happening within the policy period. Insurance in a way is a unique product, where the cost-expense is often unknown (extends till the policy coverage period), while the revenue, premium payments by policyholders are received before or during the coverage period. All the insurances other than the life insurance are covered under General Insurance. It includes fire insurance, marine insurance, motor insurance, health insurance etc.

The primary purpose of the insurance business is the spreading of risks. Because the risks associated with different policies are not perfectly correlated, the total risk of a portfolio of policies is smaller than the sum of the policies' risks. Thus, insurance functions as a mechanism to diversify products risks, which is akin to the role of mutual funds in diversifying investment risks.

Because insurers accumulate substantial funds in conducting their business, they also diversify investment risks for their stakeholders by investing in diversified portfolios. The activities of insurance companies include underwriting insurance policies (including determining the acceptability of risks, the coverage terms, and the premium), billing and collecting premiums and investigating and settling claims made under policies. Other activities include investing the accumulated funds and managing the portfolio. Investment income is also significant for insurers as they accumulate substantial funds due to the time gap between the receipt of premiums and payment of claims and invest and manage these funds to generate investment income. This income contributes to earnings and so affects the pricing of insurance policies.

An insurance company pools the premiums that customers pay to offset the risk of loss. The difficulty arises in properly estimating what future insurance claims will be and setting the premiums at a level that covers those claims, as well as leave profit for shareholders. Insurance companies earn returns on the investments they make and from returns on float. In simple terms, an insurance business makes profit when the present value of its income from premium and interest on float exceeds the present value of claims and operating expenses over the life of the policy.

10 Approach to Valuation

Income approach

Insurance companies are highly regulated. The regulatory authority governs where they can invest their fund and how much they can invest. Two major reinvestment items are net capital expenditure and change in working capital. However, an insurance company has its own challenges. Unlike a non-financial company which invests in plant and machinery, land and building and other fixed assets, an insurance company primarily invests in marketing, human capital, and other intangible assets like brand name. Such investments are often categorized as operating expenses and are expensed out in books. Insurance companies do not have what is normally understood "net working capital". Their balance sheets include investments, and policy liabilities which have various and unpredictable payment dates. Actuarial assumptions often play an important role in accounting and valuation of the life insurance companies.

Considering the aforementioned issues in estimating the periodical cash flow, application of Discounted Cash Flow Method is generally challenging for valuing a insurance companies.

Market approach

Generally, for valuation of a financial services firms, one may consider adopting price to book (P/B) and/ or price to earnings (P/E) multiples. P/B is a valuation measure that relates a firm's stock price to its book value. PE is a valuation measure that relates a firm's market capitalisation to its profits.

However, considering the nature of business of life insurance companies, these valuation metrics may not be appropriate.

Considering that General Insurance Companies ability to write premiums is directly related to their surplus, it is akin to regulatory proxy for equity capital. Also, insurers are required by regulators to maintain minimum equity capital at levels commensurate with the scope and riskiness of their activities. These regulatory effects make book equity a relatively useful measure of the scale of operations. Further the ability of insurance companies to effectively estimate risk and underwrite business also gets reflected in the profits they earn. Thus Price Earnings Ratio and Price to book value ratio are commonly used to value General Insurance companies.

11 Key Valuation Parameters

Life Insurance is a long-term business. The policy that the insurance company sells today results in income from the premiums paid over several years. It is from this future income that the insurers make profits. So, the value of a life insurance company is assessed by future profits that the current business is able to generate. Life Insurance Company expense acquisition costs upfront, profits for these companies come in later during their lifecycle. Thus, accounting statements of life insurers in India do not give a correct picture of the company's true/ commercial profitability. Furthermore, during periods of high growth, the acquisition costs are higher, and so is the strain on the business (acquisition expenses plus reserves) denting reported profitability.

Some of the key valuation parameters that need to be analysed for Life Insurance companies are,

Value of new business (VNB) - VNB is the present value of profits of insurance contracts written in the current year. The insurance company makes assumptions on persistency, mortality, and maintenance costs (post overrun) etc. to determine and report VNBs.

VNB margin - VNB Margin indicates the profit margin of Life Insurance Company. VNB margin is Value of New Business divided by Annualized Premium Equivalent (Regular Premium + 10% of Single Premium). Simply put, a VNB margin of 20% would mean that if the insurer underwrote new business premium for a particular mix of products of INR 1,000 in a year, the expected profit over the lifetime of that business is INR 200. Insurers derive higher VNB margin from their protection business. If a company wants to improve its margins, they have to focus more on the protection business.

Persistency ratio is also a very important parameter. Life Insurance companies incur huge acquisition costs, owing to marketing and commission pay-outs, which are paid over the life of the policy. The higher the number of years the policy continues, higher is the profitability. In some cases, lower persistency may improve margins. This is especially true for Non-Par policies and true in some cases even for Par policies.

Expense ratio is yet another number that needs to be analysed. The expense ratio of an insurance company is described as the expense of management divided by the gross premium. Expenses of management are the costs that an insurance company incurs and includes commissions, and operational and administrative expenses. Expense ratios depend on the type of business sold by a company.

Embedded Value (EV) - Given the constraints in the way financials of insurance companies are prepared namely profits for policies arise with a long lag, insurance companies cannot be valued on P/E, P/B or EV/Sales basis. To get over this constraint the industry has formulated Embedded Value ("EV"). EV is widely accepted measure for valuing a Life Insurance company. EV is computed as the sum of the adjusted net worth ("ANW") and the discounted value of profits from in- force policies ("VIF").
A consistent performance in the growth of EV indicates stability. Companies that experience significant changes in product strategy, distribution model, expense performance, persistency, etc, have relatively volatile EV

11 Key Valuation Parameters

Market consistent embedded value (MCEV) is a measure of the consolidated value of shareholders' interests of the insurance company. An alternative description of the MCEV is the present value of all future shareholder cashflows from the covered in force business and capital and surplus. MCEV does not include any values attributable to future sales.

Under the MCEV framework, the risk-free curve is used to discount cash flows while computing VNB margins, since the cash flows in the numerator are already adjusted for risk.

Most of the insurance industry's assets are investments in bonds and other non-equity instruments, while liabilities typically include products sold and the ability to meet policy commitments. As a result, life insurance is a liability-driven business as the business model is predicated on taking funds today in exchange for the promise to make payments in the future.

The assets and liabilities of life insurers have a unique relationship. Life insurers collect premiums from policy owners, which they invest in stocks and bonds. With these investments, insurers aim to generate returns in excess of their liabilities through investment income and capital gains. As a result of this business model, the life insurance industry is greatly impacted by its exposure to the financial sector, including interest rate risk. Earnings are dependent on the spread between investment returns and the interest paid on each insurance policy or product.

Some of the key valuation parameters that need to be analysed for Non-Life Insurance companies are :

- **Industry risk:** Insurance industry is a regulated market which is examined from its contribution to the economy, its size and growth potential, the stability of underwriting performance as well as the regulatory policies governing the sector.

- **Business risk:**
  - **Combined ratio:**
    The combined ratio is a measure of profitability of a non- life insurance company's underwriting business. A combined ratio of more than 100% means that an insurance company had more losses plus expenses than earned premiums and lost money on its operations.

    Conversely, a combined ratio of less than 100% means that a company had more earned premiums than losses plus expenses, while a combined ratio of exactly 100% is the break-even point.

    Insurance companies, however, don't just make money from charging their customers premiums -revenue also comes from investment income in stocks, bonds, and other areas outside the core business of selling insurance policies.

    Combined Ratio is worked out as = (Incurred Losses + Expenses)/Earned Premiums

11 Key Valuation Parameters

- **Business mix**
  For non-life insurance companies, the overall business risk is generally determined by the business mix comprising insurance for fire, marine, aviation, motor, health and miscellaneous segments. Each of these segments have different risk and return profiles.

Risk Matrix

Rural Insurance	Fire	Marine Cargo
Engineering	Health	Liability
Marine Hull	Motor	Aviation

Risk Category

Risk Category	Segments
Medium	Rural Insurance, Fire, Engineering, Marine Hull
Medium to High	Marine Cargo, Health, Liability
High	Motor, Aviation

- **Policy on reinsurance**
  The underwriting risk is diversified through reinsurance and increases the capacity of reinsurance. It is critical for non-life companies in managing underwriting risks and it not only enhances the underwriting capacity but also aids to cap the overall loss that could devolve on the primary insurer.

- **Market Position**
  The market share in each line of business and the competitive advantage enjoyed will help to assess the overall business strength.

- **Financial risk:**
  - **Capitalization**
    IRDA has prescribed a minimum start-up capital of INR 1 billion for non-life insurance companies. To ensure the company's safety and financial health, it has prescribed a required solvency margin (RSM). IRDAI stipulates that all insurers—life, health and general—maintain a minimum solvency ratio of 150%. Solvency margin, captured in this ratio, is the excess of value of assets over liabilities, with certain further prescribed adjustments by IRDAI.
  - **Liquidity and financial flexibility**
    The primary sources of liquidity include underwriting and operating cash flow, and investment portfolio liquidity.

12

Valuation Methods

Certain methods which are adopted for valuation of Life insurance companies are explained below

1. Embedded Value Multiple

Much as the way Price/ book value multiples work, insurance companies are usually assigned a multiple on the embedded value. Multiples vary based on the expected growth, profitability, and other qualitative factors.
Valuation = EV (Net worth + VIF) x Multiple
This method is more suitable for companies in mature stage where both growth and RoEVs have stabilized.

** Pricing as of the filing date of the balance sheet period end date*
N.A. - Not available as the company was not listed.
N.R. - Not Reported

2. Appraisal Value

Appraisal Value (AV) refers to the value of an Insurance company coming from both its in-force business and its new business. AV is the summation of the present value of the existing business i.e. the business written in earlier years (called Embedded Value, or EV) and Structural Value. The fair VNB multiple is based on the margin, growth, and longevity of growth

AV = EV + Structural Value,
where,
Structural Value = VNB * Multiple

The following table represents the P/EV Multiple of listed Life Insurance Companies in India:

Name of the Company	Particulars as at,	Mar-31-2017	Mar-31-2018	Mar-31-2019	Sep-30-2019
ICICI Pru Life Insurance	Embedded Value (EV) (in INR Bn)	162	188	216	227
	Market Cap. (P) (in INR Bn) *	601	607	525	690
	Market Cap. (P) (in INR Bn) *	**3.7**	**3.2**	**2.4**	**3.0**
HDFC Life Insurance	Embedded Value (EV) (in INR Bn)	125	152	183	201
	Market Cap. (P) (in INR Bn) *	N.A.	940	883	1,238
	P / EV Multiple	**-**	**6.2**	**4.8**	**6.2**
SBI Life Insurance	Embedded Value (EV) (in INR Bn)	165	191	224	262
	Market Cap. (P) (in INR Bn) *	N.A.	664	777	902
	P / EV Multiple	**-**	**3.5**	**3.5**	**3.5**

(Source: RBSA Analysis, Capital IQ)

The following table represents the P/EV Multiple of listed Insurance Companies in Asia:

Name of the Company	Particulars	2017	2018	2019
Dai ichi Life YE March 31,	Embedded Value (EV) (in JPY Bn)	5,495	6,094	5,937
	Market Cap (P) (in JPY Bn) *	2,394	2,290	1,831
	P / EV Multiple	**0.4**	**0.4**	**0.3**
AIA Group YE December 31,	Embedded Value (EV) (in HKD Bn)	397	N.R.	483
	Market Cap (P) (in HKD Bn) *	816		829
	P / EV Multiple	**2.1**	**-**	**1.7**
China Pacific Insurance YE December 31,	Embedded Value (EV) (in CNY Bn)	214	258	306
	Market Cap (P) (in CNY Bn) *	299	279	215
	P / EV Multiple	**1.4**	**1.1**	**0.7**
China Life Insurance YE December 31,	Embedded Value (EV) (in HKD Bn)	882	905	1,054
	Market Cap (P) (in HKD Bn) *	857	808	726
	P / EV Multiple	**1.0**	**0.9**	**0.7**

(Source: RBSA Analysis, Capital IQ)

12 Valuation Methods

For valuing general insurance companies, the multiples which can be used must be equity linked multiples like price earnings ratio and price to book value ratios

1. **Price Earnings Ratio (P/E):** The ratio for valuing a company that measures its current share price relative to its per-share earnings. Price Earnings ratio = Market value per share / Earnings per share
2. **Price to book value ratio (P/B):** This ratio expresses the relationship between the price of share to the book value of equity per share.

The following table represents the P/E and P/B Multiple of listed Non-Life Insurance Companies in India:

Name of the Company	Particulars as at,	Mar 31, 2018	Mar 31, 2019	Sep 30, 2019
ICICI Lombard	Market Cap (P) (in INR Bn) *	334	535	565
	PAT	9	10	6
	Net -Worth	53	57	58
	P / B Multiple	**6.3**	**9.4**	**9.7**
	P / E Multiple	**38.8**	**51.0**	**NMF**
New India Assurance	Market Cap (P) (in INR Bn) *	509	200	248
	PAT	22	6	8
	Net -Worth	391	389	365
	P / B Multiple	**1.3**	**0.5**	**0.7**
	P / E Multiple	**23.2**	**33.0**	**NMF**

NMF - Not Meaningful

(Source: RBSA Analysis, Capital IQ)

From the above it is evident that New India Assurance trades at a lower multiple than its peer ICICI Lombard. Though New India Assurance is India's largest insurer, it continues to make high underwriting losses (combined ration in H1FY20 was 116.4%) which could impact its ability to write profitable business in future. Also the company has been losing its competitive position to other peers. This has resulted in company being traded at value below its book.

13 Challenges in Valuation

Given the significant difference in reported profits and VNB on one hand and net worth and EV on the other, assessing the value of life insurance company's solely on the basis of reported profits/ net worth becomes a challenge and valuers often consider/ rely on additional disclosures/ data point in respect of EV and VNB. Life insurance companies report an EV movement between two periods of time detailing the extent and the causes of changes to EV.

Under the new accounting rules (Ind AS 117/ IFRS 17) insurance companies will be required to:

- Classify contracts into investment contract or insurance contract based on assessment of insurance risk.
- Separate insurance and investment components and unbundle the insurance contract Insurance component, embedded derivative, and distinct investment components.
- Evaluate packaged products and contracts with different rights and obligations into onerous or profitable. Loss on onerous contracts have to be separated and recognized immediately.
- Capitalize and allocate insurance acquisition cash flows during the period of the contract and amortize the same on basis of revenue recognition.
- Recognize impact on insurance liabilities due to changes in discount rate in either in OCI or in P&L. Using OCI will reduce P&L volatility.
- Change revenue line item to "insurance contracts revenue".
- Provide more granularity in contract groupings for valuation purposes - portfolio of insurance contracts shall be split into annual cohorts which would be further split based on profitability bucket.
- Present income/expense from reinsurance contracts held separately from expense or income from insurance contracts issued.
- Disclose in detail for the new insurance contracts issued- growth of entity's insurance business, level of aggregation applied and expectation with respect to Contractual Service Margin recognition in future periods.

Ind AS 117 will significantly change the financial statements and disclosure requirements for life insurance companies. The new accounting standard will result in separation of insurance and investment income streams. Additionally, the amortization of acquisition costs over the premium payment term of the contract will further help in stream-lining the reported profitability of companies. These changes probably mean that dependence on VNB margins and Embedded Value as a measure to track performance of insurance companies may reduce and valuers should be able to directly use statutory filings to value life insurance companies.

14 Impact of COVID-19 on Insurance sector

The speed at which COVID-19 is impacting the economy is unprecedented. Like many businesses, insurance companies are facing unique challenges in this rapidly evolving situation. How insurers approach and respond to these challenges will influence their resiliency and ultimately how they will fare.

Insurance companies are facing new pressures as they are hit with multiple challenges-all at once.

Strain on investment portfolios - Insurance companies rely on their investment portfolios to generate returns. Markets have been in turmoil and, as a result, insurers' investment portfolios may be significantly impacted. Additionally, interest income revenue streams may quickly dry up as interest rates continue to drop.

Delayed payments - Regulators are urging insurance companies to accept late premium payments with no penalty, putting a strain on cash flow. Despite liquidity being impacted, insurance companies are still being expected to pay out claims.

Decreased premium volume - Full or partial closing of businesses coupled with social distancing has led to decreased demand for insurance. Lower payroll levels lead to lower payroll-based premiums, such as those in workers' compensation, and an uptick in layoffs results in fewer people buying houses, cars, and other insurable purchases. A decrease in premium volume means a decrease in income for insurers.

Coverage disputes - Pandemics are generally excluded from insurance policy coverage and therefore policy premium has not included the necessary charges to provide such coverage. A number of states are attempting to legislate to force insurance companies to provide insurance coverage for business interruption and other losses for claims resulting from the COVID-19 pandemic. There is uncertainty regarding which party will ultimately incur the additional cost for these adjustments.

Insurers will also likely need to adjust their budgets and implementation plans, cash flow expectations, and investment portfolios in light of recent developments.

Insurance companies that stay informed, remain proactive, and seek advice will be better positioned to respond to the compilation of challenges and uncertainty. As this situation evolves, insurers are expected to continue to serve as shock absorbers for the economy and society. Financially, the industry prepares for large loss events such as COVID-19 and should be well-capitalized for any onrush of claims. Insurers are also helped, in large part, by reinsuring large parts of their books of business, which is one of the ways the industry is able to spread risk.

Source: https://www.eisneramper.com/covid-19-insurance-ai-blog-0420/

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The Way Ahead.....

Insurance has been associated with savings and investments and less with protection (most domestic property remains uninsured). There is increasing focus on simple products that can be sold at low cost. In many lines, insurers are relying on investment income to offset poor underwriting results. Fixed premiums for motor third-party liability insurance continue to affect performance, although there have been moves to address the unlimited liability of insurers in case of claims. Public and private insurers are now subject to the same regulation, although there remain some structural advantages for the public-sector life insurer and reinsurer. Despite the pressing need for insurance, only a third of the population have a health insurance policy in the country. Low penetration and under insurance are serious which need to be addressed. Illiteracy too, is a factor, that adding to the woes of the industry.

The General Insurance (GI) Council is targeting a 2.5 percent non-life insurance penetration (as percentage of gross domestic product) by 2030, which was 0.97 percent in FY19. This is far below the Asian penetration of 1.85 percent and global penetration of 2.8 percent to GDP The GI Council is also eyeing premium collection of INR 4 trillion by FY25 which is ~ INR 2 trillion at present.

The industry needs to come out with a way to bring the uninsured under the insurance net. Right campaigning and enlightening the people about the technical aspects, the rising medical costs, the details of products & its benefits might provide some respite. The insurers need to offer innovative & mindful product at a right price. This coupled with an efficient and foolproof service mechanism would prove helpful.

The health insurance industry will continue to form a significant portion of the industry pie; however, focused marketing & operational efficiency can ensure that the segment also becomes the source of profitability to the industry. The future looks promising for the insurance industry with several changes in regulatory framework which will lead to further change in the way the industry conducts its business and engages with its customers.

There is positive outlook for the life insurance sector to grow in the future. The outlook is arrived at considering that life insurance companies are expected to generate greater profits on the back of relatively higher growth prospects, better product mix, higher margins, and customer profile, though the real impact will come only after Covid impact is behind us.

Glossary

Gross Direct Premium Income (GDPI)
Premium income booked directly from the Insured/policyholders excluding the tax element thereon.

Gross Written Premium
Gross Direct Premium plus Inward Reinsurance Premium accepted during the period (Direct Premium plus premium on reinsurances accepted).

Net Premium/ Net Written Premium/ Net Retained Premium
Gross Written Premium less premium on reinsurances ceded (Retention of the insurer after considering all types of reinsurances).

Net Earned Premium
Net Premium after adjustment for movement in the Reserves for Unexpired Risks in any given Accounting period.

Gross Incurred claims
Gross claims paid plus gross movement in claims outstanding (including gross IBNR/IBNER). This includes claims relating to both Direct and Reinsurance Accepted.

Net Incurred claims
Net claims after accounting for recovery of claims from reinsurers. This includes net claims to both Direct and Reinsurance accepted.

Combined Ratio
Net Incurred Claims/ Net Earned Premium PLUS Expenses of Management (including net commission) / Net Written Premium.

Underwriting profit
It consists of the earned premium remaining after losses have been paid and administrative expenses have been deducted. It does not include any investment income earned on held premiums.

IBNR claims
Claims that are Incurred but not reported. It represents the amount owed by an insurer to all valid claimants who have had a covered loss but have not yet reported it

IBNER claims
Claims that are Incurred but not enough reported. In contrast to IBNR, this refers to development on reported claims.

Services

Valuation

- Business & Equity Valuation
- Valuation of Brands, Goodwill, Other Intangible Assets & Intellectual Property
- Valuation of Financial Securities, Instruments & Derivatives
- Valuation of Industrial Assets and Plant & Machinery
- Valuation of Real Estate
- Valuation of Infrastructure Assets & Specialized Assets
- Purchase Price Allocations (PPA) for Mergers & Acquisition (M&A)
- Impairment Studies for Tangible Assets
- Impairment Studies for Cash Generating Units, Intangible Assets & Goodwill
- Mines, Mineral Advisory and Valuation
- Valuation of ESOPs and Sweat Equity
- Valuation for Tax, Transfer Pricing and Company Law Matters
- Fairness Opinions
- Valuation under Insolvency & Bankruptcy Code (IBC)
- Determination of Swap Ratio under Mergers and Demergers
- Valuation of Inventory / Stocks and Debtors / Receivables
- Litigation and Dispute Valuation Services

Risk Consulting

Strategic & Risk Advisory Services
- Techno Economic Feasibility Studies
- Economic Viability & Financial Appraisal
- Business Plan Review

Technical Support Services
- Lender's & Investor's /Independent Engineer Services
- Technical Due Diligence, Technical Opinions
- Chartered Engineers Opinion & Certification
- Project Cost Investigation
- Project Appraisal and Monitoring

Agency for Specialized Monitoring (ASM)
- Term Loan Monitoring
- Working Capital Monitoring
- Cash Flow Monitoring

Financial & Treasury Risk Advisory
- Assessment of Credit Risk, Market Risk & Interest Rate Risk
- Asset Quality Review & Stress Testing
- Assessment of Expected Credit Loss
- Assessment of Asset Liability Management & Liquidity Risk

Dispute & Litigation Support

- Valuation Services
- Damages & Loss of Profit Analysis
- Independent Expert testimony
- Anti-trust & Competition Advisory
- Post-Acquisition Disputes, Joint Venture & Shareholder Disputes
- Civil & Construction Disputes, Real Estate Disputes
- Intellectual Property Rights Dispute

Investment Banking
(Category 1 Merchant Bank)

- M&A Advisory:
  - Sell Side & Buy Side
  - Domestic & Cross Border
- Partner Search, Joint Ventures & Strategic Alliances
- Government Disinvestment & Privatization
- Fund Raising - Equity, Mezzanine, Structured Finance & Debt (Corporate & Project Finance)
- Distressed Investment Banking - One-Time Settlement, Priority and Interim Funding, Rescue Financing, and Buyouts
- Capital Market Advisory

Transaction Services

- Buy side due diligence and closing due diligence
- Vendor due diligence and vendor assistance
- Setting up and managing dataroom
- Advice on sale and purchase agreements (SPA) and business transfer agreements (BTA)
- Assistance in deal negotiation

Transaction Tax

Deal Tax Advisory (Strategic, IBC, PE/VC)
- Tax Due-Diligence
- Tax Structuring
- Deal Negotiation Review
- Transaction Documentation Review
- Post-Deal Integration

Corporate Restructuring
- Group Restructuring
- Financial/Capital Restructuring

Succession Planning

Holistic Implementation Support
- Merger/Amalgamation
- Demerger/Spin-off
- Capital Reduction
- Share Buyback
- Business Transfers
- Liquidation/Wind-up

Restructuring

- Insolvency Professional Services
- Assistance in the preparation of Resolution Plan
- Independent Bid Evaluation of Restructuring Proposals
- Process Advisor
- Advisor to Committee of Creditors / Creditor Advisory
- CRO services - Chief Restructuring Officer
- Priority and Interim Funding
- Turnaround Advisory and Business Transformation
- Interim Management Services

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